

## CLAIMS

### WHAT IS CLAIMED IS:

1. A programming code for execution while a computer system is in system management mode (SMM), the code comprising:

- 5 one or more instructions executable while the computer system is in SMM ;  
an entry or exit location; and  
one or more additional instructions executable while the computer system is in SMM.

2. The programming code of claim 1, further comprising:

10 another entry or exit location placed after the one or more additional instructions executable while the computer system is in SMM; and  
one or more further instructions executable while the computer system is in SMM.

3. The programming code of claim 2, wherein the entry or exit location includes both an entry location and an exit location; and wherein the another entry or exit location includes  
15 both another entry location and another exit location.

4. The programming code of claim 1, wherein the entry or exit location includes both an entry location and an exit location.

20 5. The programming code of claim 1 stored in a memory.

6. The programming code of claim 5, wherein the memory is a BIOS ROM.

25 7. The programming code of claim 5 stored in SMM space.

8. A method of operating a personal computer system while in SMM, the method comprising:

executing one or more instructions of SMM code routine while the personal computer system

5 is in SMM;

exiting the SMM code at an exit location not at the end of the SMM code routine.

9. The method of claim 8, further comprising:

re-entering the SMM code routine at the exit location; and

10 continuing executing instructions of the SMM code routine while the personal computer system is in SMM.

10. The method of claim 8, further comprising:

upon entering SMM, beginning executing instructions of the SMM code routine for a  
15 first time at a location other than a start of the SMM code routine.

11. The method of claim 8, further comprising:

entering the SMM code routine at an entry location other than a start of the SMM code routine.

12. The method of claim 8, further comprising:

saving a state of the SMM code routine before exiting SMM.

13. A computer readable program storage device encoded with instructions that, when executed by a personal computer system, performs a method operating the personal computer system while in SMM, the method comprising:

executing one or more instructions of SMM code routine while the personal computer system

5 is in SMM;

exiting the SMM code at an exit location not at the end of the SMM code routine.

14. The computer readable program storage device of claim 13, the method further comprising:

10 re-entering the SMM code routine at the exit location; and

continuing executing instructions of the SMM code routine while the personal computer system is in SMM.

15 15. The computer readable program storage device of claim 13, the method further comprising:

upon entering SMM, beginning executing instructions of the SMM code routine for a first time at a location other than a start of the SMM code routine.

16. The computer readable program storage device of claim 13, the method further comprising:

20 entering the SMM code routine at an entry location other than a start of the SMM code routine.

17. The computer readable program storage device of claim 13, the method further comprising:

saving a state of the SMM code routine before exiting SMM.

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18. A method of operating a personal computer system while in SMM, the method comprising:

entering SMM;

loading an SMM code routine at an entry location other than a start of the SMM code routine;

and

executing one or more instructions of the SMM code routine while the personal computer system is in SMM, beginning at the entry location other than the start of the SMM code routine.

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19. The method of claim 18, further comprising:

exiting the SMM code routine at an end of the SMM code routine.

20. The method of claim 19, further comprising:

saving a state of the SMM code routine before exiting SMM.

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21. The method of claim 18, further comprising:

exiting the SMM code routine at an exit location other than an end of the SMM code routine.

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22. The method of claim 21, further comprising:  
saving a state of the SMM code routine before exiting SMM.

23. The method of claim 18, further comprising:

5 reloading a saved SMM state upon entering SMM.

24. The method of claim 23, wherein reloading the saved SMM state upon entering SMM comprises reading an entry of a storage location that provides an address to a location of the saved SMM state.

25. A computer readable program storage device encoded with instructions that, when executed by a personal computer system, performs a method operating the personal computer system while in SMM, the method comprising:

entering SMM;

15 loading an SMM code routine at an entry location other than a start of the SMM code routine;

and

executing one or more instructions of the SMM code routine while the personal computer system is in SMM, beginning at the entry location other than the start of the SMM code routine.

20 26. The computer readable program storage device of claim 25, the method further comprising:

exiting the SMM code routine at an end of the SMM code routine.

27. The computer readable program storage device of claim 26, the method further comprising:

saving a state of the SMM code routine before exiting SMM.

5 28. The computer readable program storage device of claim 25, the method further comprising:

exiting the SMM code routine at an exit location other than an end of the SMM code routine.

29. The computer readable program storage device of claim 28, the method further comprising:

10 saving a state of the SMM code routine before exiting SMM.

30. The computer readable program storage device of claim 25, the method further comprising:

15 reloading a saved SMM state upon entering SMM.

31. The computer readable program storage device of claim 30, wherein reloading the saved SMM state upon entering SMM comprises reading an entry of a storage location that provides an address to a location of the saved SMM state.

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